

PHOTOMASK ASSEMBLY AND METHOD FOR PROTECTING THE SAME  
FROM CONTAMINANTS GENERATED DURING A LITHOGRAPHY PROCESS

ABSTRACT OF THE DISCLOSURE

A photomask assembly and method for protecting the photomask assembly from contaminants generated during a lithography process are disclosed. A photomask assembly  
5 includes a pellicle assembly formed from a pellicle frame and a pellicle film coupled to a first surface of the pellicle frame. The pellicle frame further includes an inner wall and an outer wall. A photomask is coupled to a second surface of the pellicle frame opposite the  
10 pellicle film. A molecular sieve that prevents airborne molecular contaminants (AMCs) generated during a lithography process from contaminating the photomask is associated with the pellicle assembly.